AMENDMENTS TO THE CLAIMS

1-21. (Cancelled)

22. (Withdrawn) A pharmaceutical composition comprising at least one component selected from the group consisting of the polypeptide according to claim 1, a polypeptide according to SEQ ID 1 to 9 or SEQ ID 47, a functional variant of one of the aforementioned polypeptides, a nucleic acid encoding one of the aforementioned polypeptides, a variant of one of the aforementioned nucleic acids, a nucleic acid which is a non-functional mutant variant of one of the aforementioned nucleic acids, a nucleic acid having a sequence complementary to one of the aforementioned nucleic acids, a vector comprising one of the aforementioned nucleic acids, a cell comprising one of the aforementioned nucleic acids, a cell comprising the aforementioned vector, an antibody or a fragment of the antibody directed against one of the aforementioned polypeptides, an antibody or a fragment of the antibody directed against a functional variant of one of the aforementioned polypeptides, a vector comprising a nucleic acid coding for one of the aforementioned antibodies, a cell comprising the vector comprising a nucleic acid coding for one of the aforementioned antibodies, and a cell comprising the vector comprising a nucleic acid coding for one of the aforementioned antibody fragments, combined or together with suitable additives or auxiliaries.

23. (Withdrawn) The pharmaceutical composition according to claim 22, wherein the nucleic acid having a complementary sequence is an antisense molecule or an RNA interference molecule.

24-26. (Cancelled)

27. (Withdrawn) A method of treating a patient suffering from a liver disorder or an epithelial cancer, wherein at least one component selected from the group consisting of a polypeptide according SEQ ID 1 to 9 or SEQ ID 47, a functional variant of one of the aforementioned polypeptides, a nucleic acid encoding one of the aforementioned polypeptides, a variant of one of the aforementioned nucleic acids, a nucleic acid which is a non-functional mutant variant of one of the aforementioned nucleic acids, a nucleic acid having a sequence complementary to one of the aforementioned nucleic acids, a vector comprising one of the aforementioned nucleic acids, a cell comprising one of the aforementioned nucleic acids, a cell comprising the aforementioned vector, an antibody or a fragment of the antibody directed against one of the aforementioned polypeptides, an antibody or a fragment of the antibody directed against a functional variant of one of the aforementioned polypeptides, a vector comprising a nucleic acid coding for the antibody, a cell comprising the vector comprising a nucleic acid coding for the antibody, and a cell comprising the vector comprising a nucleic acid coding for the antibody fragment, combined or together with suitable additives or auxiliaries, is administered to the patient in need of a the treatment in a therapeutically effective amount.

28. (Withdrawn) The method of treating according to claim 27, wherein the nucleic acid having a complementary sequence is an antisense molecule or an RNA interference molecule.

29. (Withdrawn) The method of treating according to claim 28, wherein the RNA interference molecule is administered in the form of a double stranded RNA or a vector expressing the double stranded RNA.

30. (Withdrawn) The method according to claim 29, wherein the RNA interference molecule has a size range selected from the group consisting of from 15 to 30 nucleotides.

31. (Withdrawn) The method according to claim 27, wherein the liver disorder, is a disorder selected from the group consisting of cirrhosis, alcoholic liver disease, chronic hepatitis, Wilson's Disease, heamochromatosis, hepatocellular carcinoma, benign liver neoplasms, and focal nodular hyperplasia.

32. (Withdrawn) The method according to claim 27, wherein the epithelial cancer is an adenocarcinoma of an organ selected from the group consisting of the lung, the stomach, the kidney, the colon, the prostate, the skin, and the breast.

33. (Withdrawn) A method of stimulating an immune response in a patient suffering from a liver disorder or an epithelial cancer, to a polypeptide according to the sequence of SEQ ID 1 to SEQ ID 9 or SEQ ID 47, or a functional variant thereof, wherein at least one component selected from the group consisting of a polypeptide according to the sequence of SEQ ID 1 to SEQ ID 9 or SEQ ID. No. 47, a functional variant thereof, a nucleic acid encoding one of the aforementioned polypeptides, a variant of one of the aforementioned nucleic acids, a vector comprising one of the aforementioned nucleic acids, a cell comprising one of the aforementioned nucleic acids, and a cell comprising the aforementioned vector, is administered to the patient in need of such treatment in an amount effective to stimulate the immune response in the patient.

34-46. (Cancelled)

47. (Withdrawn) A method for identifying at least one polypeptide according to SEQ ID 1 to SEQ ID 9 or SEQ ID 47, or a functional variant thereof differentially expressed in a sample isolated from a patient relative to a reference library or a reference sample comprising the following steps:

(a). detecting the expression of at least one polypeptide according to SEQ ID 1 to SEQ ID 9 or SEQ ID 47, or a functional variant thereof in a sample isolated from a patient,

(b) comparing the expression of said polypeptide(s) detected in step (a) with the expression of said polypeptide(s) in a reference library or in a reference sample,

(c) identifying said polypeptide(s) which is (are) differentially expressed in the sample isolated from the patient compared to the reference library or the reference sample.

48. (Withdrawn) A method of diagnosing a liver disorder or epithelial cancers comprising the following steps:

(a) detecting the expression of at least one polypeptide according to SEQ ID 1 to SEQ ID 9 or SEQ ID No. 47, or functional variants thereof in a sample isolated from a patient,

(b) comparing the expression of said polypeptide(s) detected in step (a) with the expression of said polypeptide(s) in a reference library or in a reference sample,

(c) identifying said polypeptide(s) which is (are) differentially expressed in the sample isolated from the patient compared to the reference library or the reference sample, and

(d) matching said polypeptide i(s)dentified in step (c) with said polypeptide(s) differentially expressed in a pathologic reference sample or pathologic reference library,

wherein the matched polypeptide(s) are indicative of the patient suffering from a liver disorder, or an epithelial cancer.

49. (Withdrawn) The method according to claim 48, wherein at least 2 polypeptides are identified.

50. (Withdrawn) The method according to claim 48, wherein the polypeptides are detected by a method selected from the group consisting of gel electrophoresis, chromatographic techniques, immunoblot analysis, immunohistochemistry, enzyme based immunoassay, surface plasmon resonance, HPLC, mass spectroscopy, immunohistochemistry, and enzyme based immunoassay.

51. (Withdrawn) The method according to claim 48, wherein the polypeptides are compared by a method selected from the group consisting of two dimensional gel electrophoresis, chromatographic separation techniques, immunoblot analysis, surface plasmon resonance, immunohistochemistry, and enzyme based immunoassay.

52. (Withdrawn) The method according to claim 48, wherein the sample isolated from a patient is selected from the group consisting of liver tissue, a liver cell, tissue from another organ subject to cancerous transformation, a cell from this organ, blood, serum, plasma, ascitic fluid, pleural effusion, cerebral spinal fluid, saliva, urine, semen, and feces.

53. (Withdrawn) The method according to claim 48, wherein the reference sample is isolated is from a source selected from a non diseased sample of the same patient and a non diseased sample from another subject.

54. (Withdrawn) The method according to claim 48, wherein the reference sample is selected from the group consisting of liver tissue, a liver cell, blood, serum, plasma, ascitic fluid, pleural effusion, cerebral spinal fluid, saliva, urine, semen, and feces.

55. (Withdrawn) The method according to claim 48, wherein the reference library is an expression library or a data base comprising clones or data on liver disorder specific expression of said polypeptide(s) of step (a).

56. (Withdrawn) The method according to claim 48, wherein the pathologic reference sample is isolated from a source selected from a diseased sample from another patient suffering from a liver disorder and epithelial cancer.

57. (Withdrawn) The method according to claim 48, wherein the pathologic reference library is a data base comprising data on differential expression of said polypeptide(s) of step (a) in samples isolated from another patient, suffering from a liver disorder or epithelial cancer relative to control expression in a reference sample or reference library.

58. (Withdrawn) The method according to claim 48, wherein the liver disorders is a disorder selected from the group consisting of hepatocellular carcinoma, benign liver neoplasms, and cirrhosis.

59. (Withdrawn) The method according to claim 48, wherein the epithelial cancer is an adenocarcinoma of an organ selected from the group consisting of the lung, the stomach, the kidney, the colon, the prostate, the skin, and the breast.

60. (Withdrawn) A method of preventing a patient from developing a liver disorder or an epithelial cancer, wherein at least one component selected from the group consisting of a polypeptide according to the sequence of SEQ ID 1 to SEQ ID 9 or SEQ ID 47, a functional variant thereof, a nucleic acid encoding one of the aforementioned polypeptides, a variant of one of the aforementioned nucleic acids, a nucleic acid having a sequence complementary to one of the aforementioned nucleic acids, a nucleic acid which is a non-functional mutant variant of one of the aforementioned nucleic acids, a vector comprising one of the aforementioned nucleic

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acids, or a variant thereof, a cell comprising one of the aforementioned nucleic acids, or a variant thereof, and a cell comprising the aforementioned vector, is administered to the patient in need of such preventive treatment in a therapeutically effective amount.

61. (Withdrawn) A method of identifying a pharmacologically active compound comprising the following steps:

    (a)   providing at least one polypeptide according to the SEQ ID 1 to 9 or 47, or a functional variant thereof,

    (b)   contacting said polypeptide(s) with suspected to be pharmacologically active compound(s),

    (c)   assaying the interaction of said polypeptide(s) of step (a) with said compound(s) suspected to be pharmacologically active,

    (d)   identifying said compound(s) suspected to be pharmacologically active which directly or indirectly interact with said polypeptide(s) of step (a).

62. (Withdrawn) The method according to claim 61, wherein said polypeptide(s) of step (a) is (are) attached to a column, said polypeptide(s) is (are) attached to an array, contained in an electrophoresis gel, attached to a membrane, or is (are) expressed by a cell.

63. (Withdrawn) The method according to claim 61, wherein the interaction is assayed enzyme or fluorescence based cellular reporter methods.

64. (Withdrawn) The method according to claim 61, wherein the interaction is assayed by surface plasmon resonance, HPL, or mass spectroscopy.

65. (Withdrawn) The method according to claim 61, wherein the direct or indirect functional interaction of step (d) is selected from the group consisting of induction of the expression of said polypeptide(s) of step (a), inhibition of said polypeptide(s), activation of the function of said polypeptide(s), and inhibition of the function of said polypeptide(s).

66. (Currently amended) A method of diagnosing hepatocellular carcinoma, said method comprising:

(1) identifying a polynucleotide in a sample from a patient, wherein said sample is selected from group consisting of liver tissue, a liver cell, tissue, blood, serum, and plasma, wherein said polynucleotide is a polynucleotide consisting of the polynucleotide sequence of SEQ ID No. 11 or a polynucleotide comprising the polynucleotide sequence of SEQ ID No. 11,

alone or in combination with at least one polynucleotide consisting of a polynucleotide sequence selected from SEQ ID Nos. 12-19 or a polynucleotide comprising the polynucleotide sequence selected from SEQ ID Nos. 12-19, and

(2) comparing expression of the polynucleotide(s) identified in step (1) with expression of said polynucleotide from a non-diseased control, wherein ~~overexpression~~ over-expression of the identified polynucleotide(s) in the sample from the patient as compared to the non-diseased control ~~is indicative of a diagnosis of~~ indicates that said patient has hepatocellular carcinoma.

67-68. (Cancelled)

69. (Currently amended) A method for identifying a polynucleotide differentially expressed in a sample isolated from a patient to be diagnosed for hepatocellular carcinoma relative to a reference library or a reference sample from a non-diseased control, said method comprising:

(1) detecting expression of a polynucleotide in a sample from the patient, wherein said sample is elected from the group consisting of liver tissue, a liver cell, tissue, blood, serum, and plasma, wherein said polynucleotide is a polynucleotide consisting of the polynucleotide sequence of SEQ ID No. 11 or a polynucleotide comprising the polynucleotide sequence of SEQ ID No. 11,

alone or in combination with at least one polynucleotide consisting of a polynucleotide sequence selected from SEQ ID Nos. 12-19 or a polynucleotide comprising the polynucleotide sequence selected from SEQ ID Nos. 12-19,

(2) comparing expression of said polynucleotide(s) detected in step (1) with expression of said polynucleotide(s) in the reference library or in the reference sample selected from the group consisting of liver tissue, a liver cell, tissue, blood, serum, and plasma, and

(3) identifying said polynucleotide(s) which is (are) differentially expressed in the sample isolated from the patient, as compared to said polynucleotide(s) in the reference library or the reference sample.

70. (Cancelled)

71. (Previously presented) The method according to claim 69, wherein at least 2 polynucleotides are identified in step (1).

72. (Previously presented) The method according to claim 69, wherein in step (1) the detection of said polynucleotide(s) is (are) performed by PCR based detection or by a hybridization assay.

73. (Previously presented) The method according to claim 69, wherein in step (1) the expression of said polynucleotide(s) is detected by a method selected from the group consisting of solid-phase based screening methods, hybridization, subtractive hybridization, differential display, and RNase protection assay.

74. (Currently amended) The method according to claim 69, wherein the sample isolated from the patient sample is selected from the group consisting of ~~liver tissue, a liver cell,~~ tissue from ~~another~~ an organ other than liver but that is subject to cancerous transformation, a cell from ~~this~~ said organ other than liver but that is subject to cancerous transformation, ~~blood, serum, plasma,~~ ascitic fluid, pleural effusion, cerebral spinal fluid, saliva, urine, semen, and feces.

75. (Previously presented) The method according to claim 69, wherein the reference sample is isolated from a source selected from a non-diseased sample of the same patient and a non-diseased sample from another subject.

76. (Currently amended) The method according to claim 69, wherein the reference sample is selected from the group consisting of ~~liver tissue, a liver cell, blood, serum, plasma,~~ tissue from an organ other than liver, a cell from said organ other than liver, ascitic fluid, pleural effusion, cerebral spinal fluid, saliva, urine, semen, and feces.

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77. (Previously presented) The method according to claim 69, wherein the reference sample is an expression library or a data base comprising clones or data on hepatocellular carcinoma-specific expression of said nucleic acid(s) of step (1).

78. (Previously presented) The method according to claim 69, wherein the reference sample is isolated from a source selected from a diseased sample from another patient suffering from hepatocellular carcinoma.

79. (Currently amended) The method according to claim 69, wherein, the pathologic reference library is a ~~data base~~ database comprising data on differential expression of said polynucleotide(s) in step (a) in samples isolated from another patient suffering from hepatocellular carcinoma relative to control expression in a reference sample or reference library.

80-81. (Cancelled)

82. (Withdrawn) A diagnostic for hepatocellular carcinoma comprising:

a polynucleotide consisting of the polynucleotide sequence of SEQ ID No. 11 or a polynucleotide comprising the polynucleotide sequence of SEQ ID No. 11,

alone or in combination with at least one polynucleotide consisting of a polynucleotide sequence selected from SEQ ID Nos. 12-19 or a polynucleotide comprising the polynucleotide sequence selected from SEQ ID Nos. 12-19, and

combined or together with suitable additives or auxiliaries.

83. (Withdrawn) The diagnostic according to claim 82, wherein the nucleic acid is a probe.

84. (Withdrawn) The diagnostic according to claim 83, wherein the probe is a DNA probe.

85. (Previously presented) The method of diagnosing-hepatocellular carcinoma according to claim 66, wherein the over-expression of the identified polynucleotide is greater than about 2-fold of that in the non-diseased control.